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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,588	11/17/2005	Tobias Kaesser	F-8705	8977

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EXAMINER	
CHAN, SAI MING	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.**	**Applicant(s)**	
	10/538,588	KAESSER ET AL.	
	Examiner	**Art Unit**	
	Sai-Ming Chan	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *13 June 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10 and 12-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10 and 12-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *S*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :11/21/2005, 03/27/2006 and 8/18/2006.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 6-7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bonetti et al. (U.S. Patent #5254963),** in view of **Siu (U.S. Patent #4792771).**

Consider **claims 1,** Bonetti et al. clearly disclose and show an input multiplexer (IMUX) (fig. 1 (2), column 2, lines 33-36) for splitting a broad frequency band (fig. 1 (2), column 2, lines 33-36 (narrow band pass filter)) into a series of narrower frequency channels comprising :

bandpass filters each having a center frequency arranged one per frequency channel (column 1, lines 31-38 (center frequency of the band-pass filter)), each of said bandpass filters having an input and an output (fig. 1 (2), column 2, lines 33-36); and

a low loss manifold (fig. 1 (2), column 2, lines 33-36) formed of sections of transmission lines each of a predetermined length (fig. 1 (2), column 2, lines 33-36) and respectively connected to the input of, one of said bandpass filters (fig. 1 (2), column 2, lines 33-36).

However, Boneti et al. do not specifically disclose a filter having an order of more than six.

In the same field of endeavor, Siu clearly show a filter having an order of more than six (col. 1, lines 37-40 (8-pole filter in input multiplexer))

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and

demonstrate a filter having an order of more than 6, as taught by Siu, so that the performance of the filter is highly effective.

Consider **claim 5,** and **as applied to claim 1 above,** Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer wherein the geometry of the low loss manifold is a combine of herringbone (fig. 2a, column 2, lines 21-32).

Consider **claim 6,** and **as applied to claim 1 above,** Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer wherein the bandpass filters are resonators in a single mode (column 1, lines 67 (single mode)), dual mode (column 1, lines 67 (dual mode)), triple mode (column 1, lines 67 (plurality of modes)) and/or in quadruple mode (column 1, lines 67 (plurality of modes)) operational configuration.

Consider **claim 7,** and **as applied to claim 1 above,** Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer, wherein the filters, with respect to their center frequency, are connected in any sequence with the manifold (column 1, lines 31-38 (for the particular mode under consideration)).

Consider **claim 10,** and **as applied to claim 1 above,** Bonetti et al., as modified by Siu, clearly disclose and show a multiplexer, wherein the overall arrangement of the multiplexer covers all channels of an IMUX (abstract).

Claims 2, 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bonetti et al. (U.S. Patent #5254963),** in view of **Siu (U.S. Patent #4792771),** and in view of **Agee (U.S. Patent Publication #20030123384).**

Consider **claims 2 and 3,** and **as applied to claim 1 above,** Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer as described.

However, Bonetti et al. do not specifically disclose non-contiguous or contiguous band-pass filters.

In the same field of endeavor, Agee et al. clearly show the bandpass filters arranged non-contiguously (paragraph 0174 (non-contiguous)) or contiguously (paragraph 0174 (overlap)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate contiguous or non-contiguous band-pass filters, as taught by Agee, so that the performance of the filter is highly effective.

Consider **claim 8,** and **as applied to claim 1 above,** Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer as described.

However, Bonetti et al. do not specifically disclose channel equalization.

In the same field of endeavor, Agee et al. clearly show the equalizing of the bandpass filters and/or the manifold (paragraph 0030 (equalization of channel distortion)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate distortion equalization, as taught by Agee, so that the performance of the filter is highly effective.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Bonetti et al. (U.S. Patent #5254963),** in view of **Siu (U.S. Patent #4792771),** and in view of **Wang et al. (U.S. Patent Publication #20030090344).**

Consider **claim 4,** and **as applied to claim 1 above,** Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer as described.

However, Bonetti et al. do not specifically disclose different band-pass filters.

In the same field of endeavor, Wang et al. clearly show the bandpass filters are constructed in the waveguide technique (paragraph 0045 (waveguide)), the coaxial technique (paragraph 0036 (coaxial resonator)), the dielectric technique (paragraph 0036 (dielectric) and/or the planar technique (paragraph 0057 (planar)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate different band-pass filters, as taught by Wang et al., so that the performance of the filter is highly effective.

Claims 12-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bonetti et al. (U.S. Patent #5254963),** in view of **Siu (U.S. Patent #4792771),** and in view of **Yu et al. (U.S. Patent # 6882251).**

Consider **claim 12,** and **as applied to claim 1 above,** Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer as described.

However, Bonetti et al. do not specifically disclose imaginary frequency axis.

In the same field of endeavor, Yu et al. clearly show the bandpass filters each have a transmission function with zeros on the imaginary frequency axis (fig. 1a, column 5, lines 12-20 (transmission zeros)) in a vicinity of the pass band (col. 6, lines 60-67 (pasband of the filter)) so as to provide selectivity (col. 1, lines 39-44 (vary the number of transmission zeros)) and a low variation in group delay (col. 4, lines 44-53 (improve group delay)) within the pass band (col. 6, lines 60-67 (pasband of the filter)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate the imaginary frequency axis, as taught by Yu et al., so that the performance of the filter is highly effective.

Consider **claim 13**, and **as applied to claim 12 above**, Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer as described.

However, Bonetti et al. do not specifically disclose the transmission functions further have zeros with a finite real part.

In the same field of endeavor, Yu et al. clearly show the transmission functions (col. 4, line 65-col. 5, line 5 (transfer function)) further have zeros with a finite real part (fig. 1a, column 5, lines 12-20 (transmission zeros)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate the the transmission functions further have zeros with a finite real part, as taught by Yu, so that the performance of the filter is highly effective.

Consider **claim 14**, and **as applied to claim 1 above**, Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer as described.

However, Bonetti et al. do not specifically disclose the bandpass filters each have a transmission function with zeros with a finite real part.

In the same field of endeavor, Yu et al. clearly show the bandpass filters (col. 4, line65-col. 5, line 5 (filter)) each have a transmission function (col. 4, line 65-col. 5, line 5 (transfer function)) with zeros with a finite real part (fig. 1a, column 5, lines 12-20 (transmission zeros)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate the bandpass filters each have a transmission function with zeros with a finite real part, as taught by Yu, so that the performance of the filter is highly effective.

Consider **claim 15**, and **as applied to claim 1 above**, Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer as described.

However, Bonetti et al. do not specifically disclose the bandpass filters each have:

a transmission function with zeros on the imaginary frequency axis in a vicinity of the passband so as to provide selectivity; and

the transmission function includes further transmission zeros each having with a finite real part such that group delay in the passband is reduced by including said further transmission zeros from a group delay resulting from a configuration absent said further

transmission zeros.

In the same field of endeavor, Yu et al. clearly show the bandpass filters each have:

a transmission function with zeros on the imaginary frequency axis (fig. 1a, column 5, lines 12-20 (transmission zeros)) in a vicinity of the passband (col. 6, lines 60-67 (pasband of the filter)) so as to provide selectivity (col. 1, lines 39-44 (vary the number of transmission zeros)); and

the transmission function includes further transmission zeros each having with a finite real part (fig. 1a, column 5, lines 12-20 (transmission zeros)) such that group delay in the passband is reduced by including said further transmission zeros from a group delay (fig. 5c, col. 10, lines 55-59) resulting from a configuration absent said further transmission zeros (fig. 5c, col. 10, lines 55-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate the bandpass filters each have: a transmission function with zeros on the imaginary frequency axis in a vicinity of the passband so as to provide selectivity; and the transmission function includes further transmission zeros each having with a finite real part such that group delay in the passband is reduced by including said further transmission zeros from a group delay resulting from a configuration absent said further transmission zeros, as taught by Yu, so that the performance of the filter is highly effective.

Consider **claim 17**, Bonetti et al. clearly disclose and show an input multiplexer (IMUX) (fig. 1 (2), column 2, lines 33-36) for splitting a broad frequency band (fig. 1 (2), column 2, lines 33-36 (narrow band pass filter)) into a series of narrower frequency channels comprising:

bandpass filters including a bandpass filter for each frequency channel (column 1, lines 31-38), each of said bandpass filters having an input and an output (fig. 1 (2), column 2, lines 33-36); and

a low loss manifold (fig. 1 (2), column 2, lines 33-36) formed of sections of transmission lines each of a predetermined length (fig. 1 (2), column 2, lines 33-36) and respectively connected to the input of one of said bandpass filters ((fig. 1 (2), column 2, lines 33-36)).

However, Boneti et al. do not specifically disclose a filter having a number of resonating circuits of more than six.

Furthermore, Siu clearly show a filter having an order of more than six (col. 1, lines 37-40 (8-pole filter in input multiplexer))

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate a filter having an order of more than 6, as taught by Siu, so that the distortion can be kept to the minimum.

However, Boneti et al., as modified by Copeleand, do not specifically disclose each of said bandpass filters having transmission function with zeros on the imaginary

frequency axis in a vicinity of the passband so as to provide selectivity thereby providing steep skirts, and a low variation of group delay produced by further transmission zeros with a finite real part.

In the same field of endeavor, Yu et al. clearly show each of said bandpass filters having transmission function with zeros (col. 4, line65-col. 5, line 5 (transfer function)) on the imaginary frequency axis (fig. 1a, column 5, lines 12-20 (transmission zeros)) in a vicinity of the passband (col. 6, lines 60-67 (pasband of the filter)) so as to provide selectivity (col. 1, lines 39-44 (vary the number of transmission zeros)) thereby providing steep skirts (fig. 5c, col. 10, lines 55-59), and a low variation of group delay produced (col. 4, lines 44-53 (improve group delay)) by further transmission zeros with a finite real part (fig. 1a, column 5, lines 12-20 (transmission zeros)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate a filter having a number of resonating circuits of more than six, as taught by Siu, and show each of said bandpass filters having transmission function with zeros on the imaginary frequency axis in a vicinity of the passband so as to provide selectivity thereby providing steep skirts, and a low variation of group delay produced by further transmission zeros with a finite real part, as taught by Yu, so that the performance of the filter is highly effective.

Claim 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bonetti et al. (U.S. Patent #5254963), in view of **Siu (U.S. Patent #4792771),** and in view of **Gammon (U.S. Patent #5781865).**

Consider **claim 9,** and **as applied to claim 1 above,** Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer as described.

However, Bonetti et al. do not specifically disclose two or more multiplexers.

In the same field of endeavor, Yu et al. clearly show a multiplex including two or more of the input multiplexer (fig. 10a (505s and 515s), column 4, lines 50-65), wherein the two or more of the input multiplexer are connected through hybrid couplers (fig. 10a (900 combiner), column 4, lines 50-65) and/or power splitters (fig. 10a (910 splitter), column 4, lines 50-65).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate more than one multiplexer, as taught by Gammon, so that the performance of the filter is highly effective.

Claims 16 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bonetti et al. (U.S. Patent #5254963),** in view of **Siu (U.S. Patent #4792771),** and in view of **Yu et al. (U.S. Patent # 6882251),** and further in view of **Cameron (U.S. Patent #5739733).**

Consider **claim 16**, and **as applied to claim 1 above,**

claim 18, and **as applied to claim 17 above,**

Bonetti et al., as modified by Siu, clearly disclose and show an input multiplexer as described.

However, Bonetti et al. do not specifically disclose the bandpass filters each have:

a transmission function with zeros on the imaginary frequency axis in a vicinity of the passband so as to provide selectivity; and configured such that group delay in the passband is reduced from a configuration absent said further transmission zeros;

In the same field of endeavor, Yu et al. clearly show a transmission function (col. 4, line65-col. 5, line 5 (transfer function)) with zeros on the imaginary frequency axis (fig. 1a, column 5, lines 12-20 (transmission zeros)) in a vicinity of the passband (col. 6, lines 60-67 (pasband of the filter)) so as to provide selectivity (col. 1, lines 39-44 (vary the number of transmission zeros)) and configured such that group delay in the passband is reduced (fig. 5c, col. 10, lines 55-59) from a configuration absent said further transmission zeros (fig. 5c, col. 10, lines 55-59);

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate the bandpass filters each have a transmission function with zeros on the imaginary frequency axis in a vicinity of the passband so as to provide selectivity, as taught by Yu, so that the distortion can be kept to the minimum.

However, Bonetti et al., as modified by Yu, do not specifically disclose an external group delay equalizer.

Furthermore, Cameron, clearly discloses an external group delay equalizer (col. 1, lines 22-29 (external equalization)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., demonstrate the bandpass filters each have a transmission function with zeros on the imaginary frequency axis in a vicinity of the passband so as to provide selectivity, as taught by Yu, and disclose an external group delay equalizer, as taught by Cameron, so that the performance of the filter is highly effective.

Consider **claim 19**, Bonetti et al., clearly disclose and show an input multiplexer (IMUX) for splitting a broad frequency band into a series of narrower frequency channels comprising:

bandpass filters including a bandpass filter for each frequency channel (column 1, lines 31-38 (center frequency of the band-pass filter)), each of said bandpass filters having an input and an output (fig. 1 (2), column 2, lines 33-36), and

a low loss manifold (fig. 1 (2), column 2, lines 33-36) formed of sections of transmission lines each of a predetermined length (fig. 1 (2), column 2, lines 33-36) and respectively connected to the input of one of said bandpass filters (fig. 1 (2), column 2, lines 33-36).

However, Boneti et al. do not specifically disclose each filter having a number of resonating circuits of more than 6.

Furthermore, Siu clearly show a filter having a n umber of resonating circuits of more than 6 (col. 1, lines 37-40 (8-pole filter in input multiplexer)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., and demonstrate a filter having a number of resonating circuits of more than 6, as taught by Siu, so that the distortion can be kept to the minimum.

However, Boneti et al., as modified by Copeleand, do not specifically disclose an external group delay equalizer coupled to a filter.

In addition, Cameron clearly discloses an external group delay equalizer coupled to a filter (col. 1, lines 24-30 (external equalization)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., demonstrate a filter having a number of resonating circuits of more than 6, as taught by Siu, and show an external group delay equalizer coupled to a filter, as taught by Cameron, so that dispersed slope of a filter can be reduced.

However, Boneti et al., as modified by Copeleand, do not specifically disclose each of said bandpass filters having transmission function with zeros on the imaginary frequency axis in a vicinity of a passband of said bandpass filter positioned so as to provide selectivity thereby providing steep skirts; each of said bandpass filters configured to produce a low variation of group delay;

In the same field of endeavor, Yu et al. clearly show each of said bandpass filters having transmission function with zeros (col. 4, line65-col. 5, line 5 (transfer function)) on the imaginary frequency axis (fig. 1a, column 5, lines 12-20 (transmission zeros)) in a vicinity of the passband (col. 6, lines 60-67 (pasband of the filter)) so as to provide selectivity (col. 1, lines 39-44 (vary the number of transmission zeros)) thereby providing steep skirts (fig. 5c, col. 10, lines 55-59), and each said bandpass filters configured to produce a low variation of group delay (col. 4, lines 44-53 (improve group delay)).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of invention to incorporate an input multiplexer, as taught by Bonetti et al., demonstrate a filter having a number of resonating circuits of more than six, as taught by Siu, display an external group delay equalizer coupled to a filter, as taught by Cameron and show each of said bandpass filters having transmission function with zeros on the imaginary frequency axis in a vicinity of the passband so as to provide selectivity thereby providing steep skirts, and each of said bandpass filters configured to produce a low variation of group delay, as taught by Yu, so that the performance of the filter is highly effective.

Response to Argument

Applicant's arguments filed on June 13, 2008, with respect to claims 1, 6, 7 and 10, on pages 9-18 of the remarks, have been carefully considered.

In the present application, Applicants basically argue, the multiplexer used in the Bonetti reference was an output multiplexer and Bonetti et al. do not teach or suggest

"each of the said bandpass filter having the order of more than six". The Examiner has modified the response with a new reference which combines with Bonetti reference to provide "each of the said bandpass filter having the order of more than six" and modified the response to point to the input multiplexer in the Bonetti reference. See the above rejections of claims 1, 6, 7 and 10, for the relevant interpretation and citations found in Siu et al., disclosing the missing limitations.

Conclusion

Any response to this Office Action should be **faxed to** (571) 273-8300 **or mailed to**:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Sai-Ming Chan whose telephone number is (571) 270-1769. The Examiner can normally be reached on Monday-Thursday from 6:30am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

/Sai-Ming Chan/

Examiner, Art Unit 2616

September 13, 2008

/Seema S. Rao/

Supervisory Patent Examiner, Art Unit 2616